

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the reasons that follow.

Claims 10 and 12-14 were previously canceled. Claims 15-16 were previously withdrawn. Claims 7-9, 11 and 17 are currently pending in the application.

Rejections Under 35 U.S.C. § 103(a)

Claims 7-9 and 11 were rejected as being unpatentable over U.S. Patent Application Publication No. 2003/0093950 to Goebel in view of U.S. Patent No. 6,162,558 to Borup. The Office Action also rejects claim 17 over Goebel and Borup, as applied to claim 8, and further in view of U.S. Patent No. 5,110,559 to Kondo. Applicant respectfully traverses these two rejections for the following reasons.

In summary, Applicant respectfully traverses the Examiner's continued interpretation of the Borup reference on several bases. While Applicant can not change the Examiner's thinking that "one cannot show nonobviousness by attacking references individually," Applicant respectfully submits that this is not what is happening here. Goebel teaches a base structure that the Examiner attempts to modify is several ways with Borup. However, the Examiner's interpretation of what Borup teaches does not correspond with what is recited in claim 7 and its combination with Goebel does not result in the invention recited in claim 7. The invention recited in claim 7 is simply different.

First, it is understood that Goebel does not suggest stopping air for the catalyst activation step, but Borup does not disclose how to fill this void—Borup does not describe any benefits to stopping the air, so there is no motivation taught for stopping air for the catalyst activation step. The Examiner is just saying that it could be stopped, without any reason to explain why someone would do so.

Second, Borup discloses the step of the catalyst activation as the activation step just after the catalyst production. Accordingly, Borup's catalyst activation step is done at a different time than claimed in claim 7, which refers to the step of the catalyst activation as part of the routine start operation. Borup does not disclose or suggest the step of the catalyst activation as part of the routine start operation.

Third, Goebel does not disclose the claimed temperature range and Borup discloses the temperature range of 80 °C to 300°C for selective oxidation after the activation (Borup col. 4, ll. 37 to 44). However, Borup does not describe that the temperature is elevated to a specific temperature range not lower than 120° C and not higher than 200° C in the temperature elevating step before the activation step, as limited in claim 7. Instead, Borup teaches the temperature elevating step for a different purpose, for a different temperature range, and at a different time in the process.

Fourth, Borup does not describe whether the activation is done either with or without supplying additional PrOx air. Instead, Borup discloses that the composition of the gaseous medium for the activation contains air, 1.5% oxygen and 6.5% nitrogen. This suggests that some air may be added.

Fifth, the Examiner also states that the catalyst of Borup is activated by raising its temperature, passing through methanol reformat of standard composition, without additional PrOx air, through the PrOx catalyst for a period time (Borup, col. 7, l. 62 to col. 8, l. 3). It is disclosed in Borup that the activation of the catalyst is done after the calcination. However, it is not disclosed in Borup that the activation of the catalyst after the calcination is done either with or without an PrOx air addition step. Borup does not have the explicit description whether this PrOx air is either added or not added for the activation process. In Borup, the supply of air during activation is not described, but this does not mean that the activation is done without supplying air. Borup discloses that the gaseous medium for the activation contains air, 1.5% oxygen and 6.5% nitrogen (Borup, col. 7, ll. 65 to 67). This suggests that the activation step (selective oxidation catalyst activation step) might be done with addition of air to the gaseous medium before supplying the gaseous medium to the catalyst.

Sixth, Borup does not disclose that the reformat used for the activation is formed from a hydrocarbon fuel by a steam reforming reaction. Furthermore, it is described in Borup that the composition of the gaseous medium used for the activation after calcinations is similar to a typical reformat product (Borup, col. 8, ll. 1-2). This means it is not disclosed in Borup that the gaseous medium used for the activation after calcination is formed from a hydrocarbon fuel by a steam reforming reaction which should not lead to

gaseous medium containing air. It is not disclosed in Borup how this gaseous medium is formed.

Seventh, Borup discloses that the activation is done after the calcination for a period of 2 hours (Borup, col. 4, l. 36, and col. 7 ll. 4-5). This means this activation step is not suitable for the start operation of a fuel cell stack. The selective oxidation catalyst activation step of selective oxidation catalyst of Borup is completely different from the start operation because the activation period of 2 hours in Borup is practically too long for start operation of fuel cell stack of the present invention. Applicant notes that paragraph [0042] of the specification as filed describes that the hydrogen rich reformat 144 is streamed through the selective oxidation section 115—for 10 minutes—so that the selective oxidation catalyst 119 is subjected to hydrogen reduction and activation.

For these reasons, Goebel combined with Borup cannot be the present invention of claim 7.

Claim 8, 9, 11 and 17 are dependent from claim 7. Because claim 7 is non-obvious as explained above, Applicant respectfully submits that claims 8, 9, 11 and 17 are non-obvious for the same reasons.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith,

Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date JAN 07 2011

By Michael D. Kaminski

FOLEY & LARDNER LLP
Customer Number: 22428
Telephone: (202) 672-5490
Facsimile: (202) 672-5399

Michael D. Kaminski
Attorney for Applicant
Registration No. 32,904